

FLATHEAD COUNTY

WATER AND SEWER DISTRICT #1 - EVERGREEN

Montana Public Water Supply ID number 01744

2019 Water Quality Report

In a continuing effort to keep you informed about the quality of water and services we provide to you each day, we're once again pleased to provide you with our Annual Water Quality Report. This report is a snapshot of the quality of water we provided you last year. It includes details regarding the source of your water, what your water contains and how it compares to EPA and the State of Montana standards.

Our drinking water comes from 11 wells. They range in depth from 100 to 450 feet. Seven wells are located in the lower zone and four wells are located in the upper zone. The lower zone wells pump into the new 1.6 million gallon storage tank. The new tank provides pressure and serves the lower zone. The lower zone also has a booster pump station which allows water from the lower zone wells and storage tank to be used in upper zone during times of high demand. All of our wells and booster station have backup power generators. We have 3,282 active service connections and added 59 new connections last year. A sanitary survey inspection of our water system was conducted in April of last year. No significant deficiencies that may affect the quality of our drinking water were noted.

We want you, our valued customers, to be informed about your water utility. If you want to learn more, please attend any of our regularly scheduled meetings held on the third Wednesday of each month at 7:00 a.m. at the district office at 130 Nicholson Drive.

We want you to be informed about your water system. If you want to learn more, please contact Mark James at (406) 257-5861. Mark is our certified operator with 20 years of experience. He attends periodic training sessions to meet continuing education requirements. The most recent training course he attended was in March of last year.

DID YOU KNOW? The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and in some cases radioactive elements. Water can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in water include:

- 1) Microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 2) Inorganic contaminants, such as salts and metals which can be naturally occurring or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining and farming.
- 3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 4) Volatile organic chemicals, which are byproducts of industrial processes, petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- 5) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. We routinely monitor for constituents in your drinking water according to Federal and State laws. We take all of our water samples to Montana Environmental Laboratory in Kalispell (406-755-2131). They are a private laboratory that is certified by the State of Montana and the EPA to analyze drinking water. Our sampling frequency complies with EPA and state drinking water regulations. The following tests were performed to identify possible contaminants in our system during the period of January 1 to December 31, 2019:

- 79 coliform bacteria tests.
- 1 nitrate plus nitrite test on each of our four water sources – results were within EPA guidelines.

The following table lists the contaminants detected during recent testing. Some of our data in the table is more than a year old, since certain chemical contaminants are monitored less than once a year.

Regulated Contaminants

| CONTAMINANT | VIOLATION Y/N | SAMPLE DATE | HIGHEST LEVEL DETECTED | UNIT MEASUREMENT | MCLG | MCL | LIKELY SOURCE OF CONTAMINATION |
|---|---------------|--|------------------------------|------------------|------|---------|---|
| Total Coliform Bacteria | N | 8-7-19 | One Positive Sample | Positive Sample | 0 | 0 | Naturally occurring in the environment |
| Alpha Emitters (Adjusted) EP503 | N | 7-12-18 | 1.8 +/-1.7 | pCi/L | 0 | 15 | Erosion of natural deposits |
| Barium EP502 EP503 EP504 EP505 | N | 7-12-18 7-12-18 7-12-18 7-12-18 | 0.16 0.10 0.09 0.17 | ppm | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Copper | N | 8-9-18 | 90th % is 0.17 | ppm | 1.3 | AL= 1.3 | Corrosion of Household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| Fluoride EP502 EP503 EP504 EP505 | N | 7-12-18 7-12-18 7-12-18 7-12-18 | 0.09 0.04 0.09 0.10 | ppm | 4 | 4 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Nitrate + Nitrite EP502 EP503 EP504 EP505 | N | 7-8-19 7-8-19 7-8-19 7-8-19 | 0.21 0.47 0.23 0.24 | ppm | 10 | 10 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Lead | N | 8-9-18 | 90th % is 1 | ppb | 0 | AL= 15 | Corrosion of Household plumbing; Erosion of natural deposits |
| Di(2-ethylhexyl) phthalate EP503 | N | 7-12-18 | 2.2 | ppb | 0 | 6 | Discharge from rubber and chemical factories, plasticizer leaching from plastic pipe |
| Radium 228 EP502 EP503 | N | 7-12-18 7-12-18 | 2.1 +/- 1.5 1.8 +/- 1.5 | pCi/L | 0 | 5 | Natural deposits |
| Uranium EP502 EP504 EP505 | N | 7-12-18 7-12-18 7-12-18 | 1 1 1 | ppb | 0 | 30 | Erosion of natural deposits |

DEFINITIONS:

MCL - Maximum Contaminant Level - The “Maximum Allowed” is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal - The “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

PPM - Parts per million or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

PPB - Parts per billion or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

AL - Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Pci/L - Pico Curies per Liter - a very small unit of measurement of radioactivity.

What does this table tell us?

As you can see our system had no MCL violations. MCL’s are set at very stringent levels. To understand the possible health effects of exceeding the MCL, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one in a million chance of having any adverse health effects. Although we have learned through our monitoring and testing that some constituents have been detected, the EPA has determined that your water IS SAFE at these levels.

Our testing did uncover the possible presence of coliform bacteria during August. Although coliform bacteria are usually harmless, their presence in water is an indication that other harmful bacteria may be present. When coliform bacteria are found, special follow up tests are conducted to determine if harmful bacteria are present. In our case all repeat samples were coliform free.

Lead in drinking water comes primarily from materials and components of the service lines and home plumbing systems. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home’s plumbing. Our water system is responsible for providing high quality drinking water, but we cannot control the variety of materials used in private home plumbing systems. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested by a certified laboratory like the one we send our samples to (Montana Environmental Laboratory, 406-755-2131). When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap until the water temperature has stabilized (usually for 30 seconds to 2 minutes) before you use the water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure to lead is available from the Safe Drinking Water Hotline 1-800-426-4791, or online at www.epa.gov/safewater/lead.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or man-made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791 or online at www.epa.gov/safewater.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline, or online at www.epa.gov/safewater.

In February of 2003, the Montana Department of Environmental Quality conducted a source water assessment of our system. This report provides additional information on the potential vulnerability of our wells to contamination. The full report is available for review online at: <http://svc.mt.gov/deq/dst/#/app/swp>. The report can be summarized in the table on the following page.

Our water system is committed to providing our customers with safe, pure water and we are pleased that our water meets or exceeds all established state and federal standards. Thank you for reviewing this report.

Prepared by Montana Environmental Laboratory, LLC 1/20

Significant Potential Contaminant Sources

| Water Source | Contaminant Source | Contaminant | Hazard | Hazard Rating | Barriers | Susceptibility | Management |
|-------------------------------|--|---|---|--|--|--|--|
| All Sources | Septic tanks/sewer lines | Pathogens | Leaks and leaching of contaminants into the groundwater | Moderate for shop and office wells Low for all others | Thick unsaturated zone and deep intake | Moderate for shop and office wells Low for all others | Groundwater monitoring programs, Septic system inspection program Wastewater collection system inspection and repair program Install disinfection facilities |
| All Sources | Septic tanks/sewer lines | Nitrates | Leaks and leaching of nitrates into the groundwater | Moderate for shop and office wells Low for all others | Thick unsaturated zone and deep intake | Moderate for shop and office wells Low for all others | Groundwater monitoring programs, Septic system inspection program, Wastewater collection system inspection and repair program |
| Shop Well #4 | Vehicles and gasoline powered equipment | Gasoline and lubricants | Spills or leaks | Moderate | Thick unsaturated zone and deep intake | Low | Spill and leak control program Prohibit vehicles in control zones |
| Shop Well #4 & Office Well #5 | Abandoned oil refinery hazardous waste site (RERC) | VOCs | Spills or leaks | Moderate | Thick unsaturated zone and deep intake | Low | Groundwater monitoring programs |
| Shop Well #4 & Office Well #5 | Service Stations | Gasoline and diesel fuel | Spills or leaks | Moderate | Thick unsaturated zone and deep intake | Low | Spill and leak control program |
| Shop Well #4 & Office Well #5 | Pond/slough | Microbial contaminants | Leaching of contaminants into the groundwater | Moderate | Thick unsaturated zone and deep intake | Moderate | Spill and leak control program |
| Shop Well #4 & Office Well #5 | Livestock | Microbial contaminants | Leaching of contaminants into the groundwater | Moderate | Thick unsaturated zone and deep intake | Low | Spill and leak control program |
| Bluff Wells #1, #2, #3, #4 | Residential lawn care | Chemical fertilizers, herbicides and pesticides | Spills, leaks or improper application | Moderate | Thick unsaturated zone and deep intake | Low | Spill and leak control program Apply lawn chemicals at proper rates, Restrict all application in the control zones of wells. |
| Bluff Wells #1, #2, #3, #4 | Diesel fuel storage tank in pump station | Diesel fuel | Spills or leaks | Low | Physical contaminant basin Thick unsaturated zone and deep intake | Very Low | Tank inspection program Remove tank from control zone Leak detection and Groundwater monitoring programs |
| Shop Well #4 & Office Well #5 | Abandoned pole treatment hazardous waste site (KPTC) | cis 1,2 Dichloroethylene, trans 1,2 Dichloroethylene, lead, sulfate, other solvents | Chemical leaching into groundwater | Low | Thick unsaturated zone and deep intake | Very Low | Groundwater monitoring programs |